



DoN IUID Enterprise Training Symposium (DIETS)

Enabling Technologies Unique Identification April 8, 2010

Five Operating Sectors



Aerospace Systems



Large Scale Systems Integration

C4ISR

Unmanned Systems

Airborne Ground Surveillance / C2

Naval BMC2

Global / Theater Strike **Systems**

> **Electronic Combat Operations**

ISR Satellite Systems

Missile Defense Satellite Systems

MILSATCOM Systems

Environmental & Space Science Satellite Systems

> **Directed Energy** Systems

Electronic Systems



Radar Systems

C4ISR

Electronic Warfare

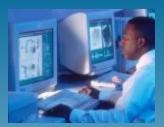
Naval & Marine Systems

Navigation & Guidance

Military Space

Government Systems

Information Systems



Command & Control Systems

Network Communications

Intelligence, Surveillance & Reconnaissance Systems

Enterprise Systems and Security

IT/Network Outsourcing

Intelligence

Federal, State/Local & Commercial

Homeland Security & Health

Northrop Grumman Proprietary Level 1

Shipbuilding



Naval Systems Integrator

Surface Combatants

Expeditionary Warfare Ships

Auxiliary Ships

Marine Composite Technology

Coast Guard Cutters

Commercial Ships

Nuclear Aircraft Carriers

Nuclear Submarines

Fleet Maintenance

Aircraft Carrier Overhaul & Refueling

Technical Services



Systems Support Base and Infrastructure Support **Range Operations**

Maintenance Support

Training and **Simulations**

Technical and **Operational Support**

Live, Virtual and **Constructive Domains**

Life Cycle Optimization

Performance Based Logistics

Modifications, Repair and Overhaul (MRO)

> Supply Chain Management

Lead Support Integrator (LSI)

Shipbuilding Sector



Engineering Organization

Fleet Sustainment

Fleet Sustainment Logistics

Life Cycle (Planning Yard)

Configuration Data Manager Technical Data Development Enabling Technologies On-Site Logistics Representatives

New Construction Logistics

LHD/LHAs

LPDs

DDGs

NSCs

Newport News



Gulf Coast



Shipbuilding



Naval Systems Integrator

Surface Combatants

Expeditionary Warfare Ships

Auxiliary Ships

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Nuclear Aircraft Carriers

Nuclear Submarines

Fleet Maintenance

Aircraft Carrier
Overhaul & Refueling





Electronic Validation Background

eValaid

eValaid ROI

eValaid to IUID

Life Cycle Processes

Lessons Learned

New Construction IUID Plan

Enabling Technologies Initiatives

Initial Challenge - Electronic Validation



				2004								
t		S	S	m	t	W	t	f	S	S		
					Lif	e Cyc	cle					
	Process Improvement											
				Th	roug	h Inn	ovat	ion				
					Pa	perle	ess					
					eVa	alidat	ion					
				Conf	igur	ation	Upd	ates				

Initial Challenge - Development



2004

eValaid Prototype

Paper to Handheld Technology

Implementation

Data Retrieval - Complex Shipboard Use - Success

Challenges

Unidentified Processes Software Selection Open Architecture

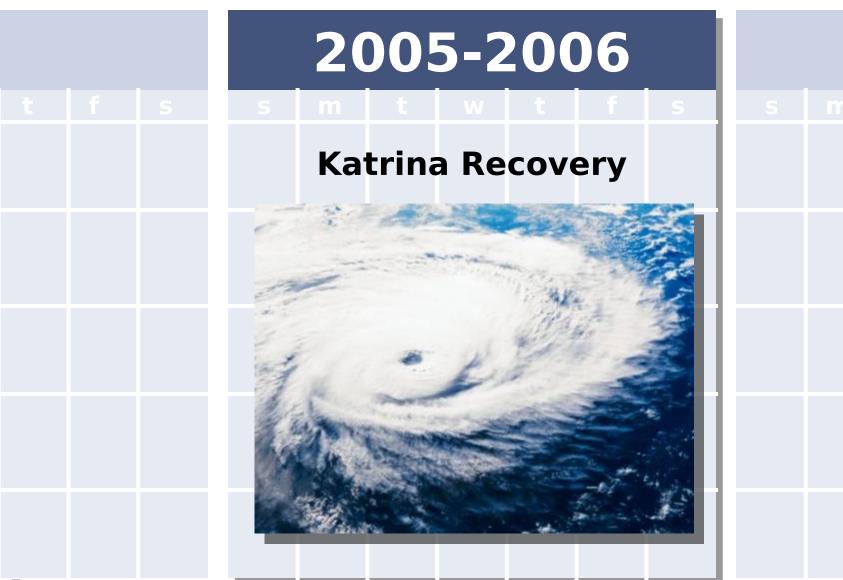
Conclusion

Led to Software/Process

Assess Results

Delay in Development and Implementation





Northrop Grumman Proprietary Level 1

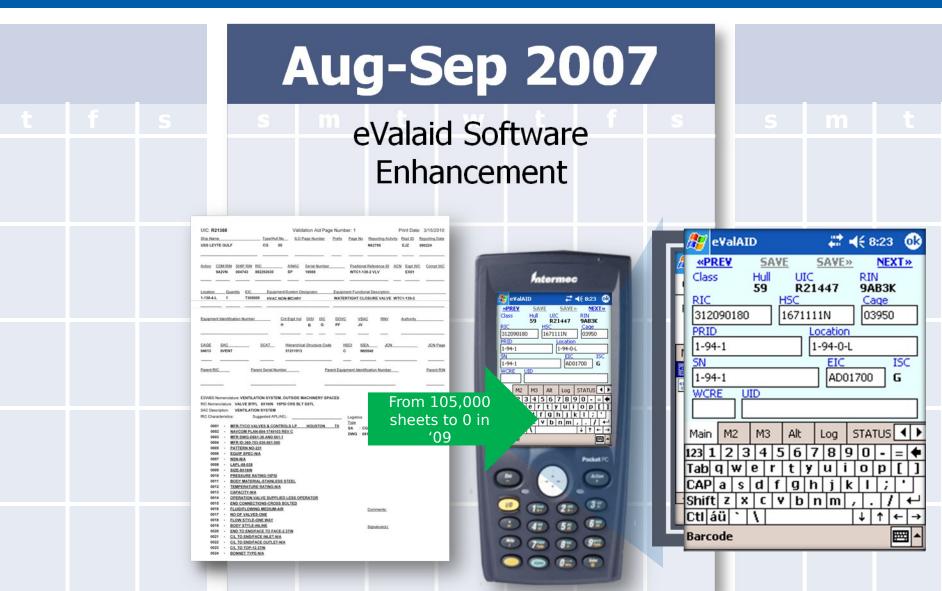
Electronic Validation Restart



Jan 2007 SFA21 Fleet Logistics direction "Impleme Electronic Validation" nt lessons-learned User/Developer interface **Internal/External Process** Software Selection Field Test Focused Users On-Site Logistics Representatives (OSLR) Goal 1 Oct 2007

eValaid





eValaid Pilot



Oct-Dec 2007



eValaid Tool Utilized in side-by-side test

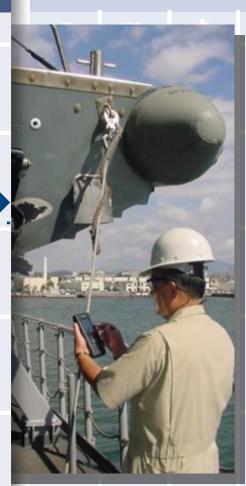
Paper vs. Electronic



CG 54 & CG 57 Availabilities
San Diego

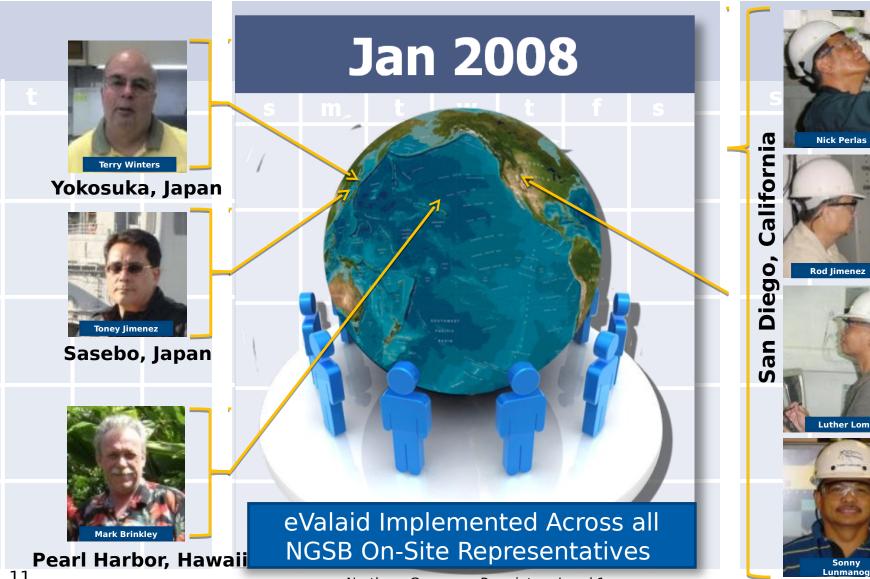
Not dropping 250 sheets of paper Valaids in the bilge and crawling around to retrieve

"PRICELESS"



eValaid Implementation







Sonny

09/01/16

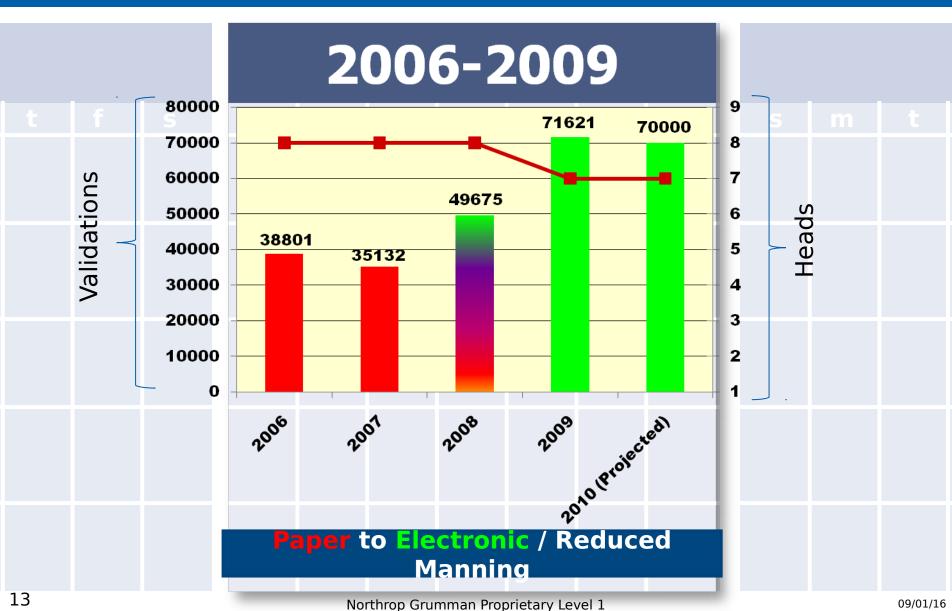
eValaid - Return on Investment



2009												
			S	m	t	W	t	f	S			
				100%		•						
				uced O		_						
			>:	100,00	0 Page	s not p	orinted o	or shipp	ed			
			Allowe	ed an 8,	000 MH	Cost a	avoidar	1 ce (4 l	neads)			
			Elimin	ated n	nanual	data e	entry (3	-5 min/	record)			
	OSLR more water front/Ship support											
					Less	data e	entry					
			Com	pleted :	30 avai	is & 7:	L,621 v	alidati	ions			
10			Rea	al-Time	upda	tes w	ith zei	ro erro	ors			

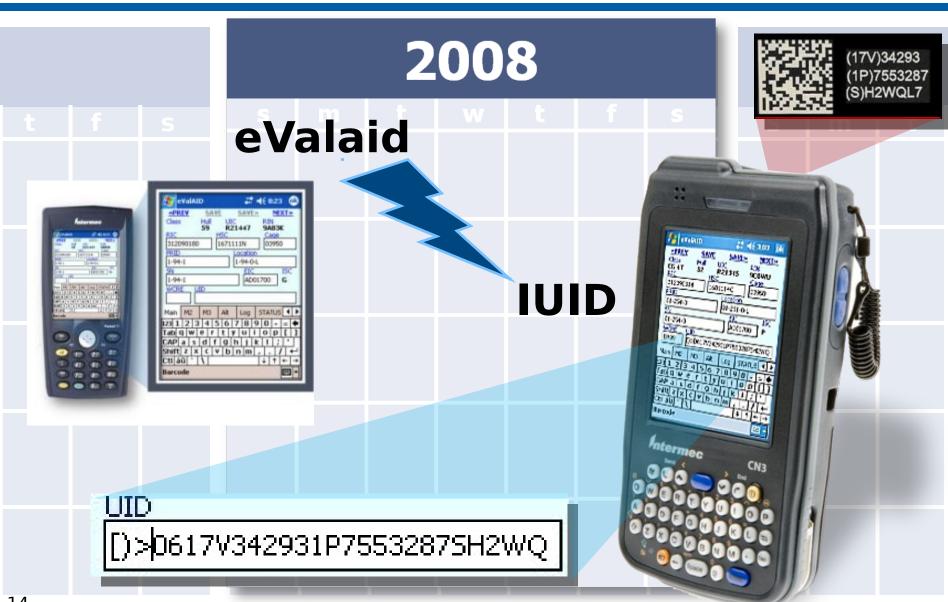
Return on Investment Metrics





eValaid Expanded for IUID





Life Cycle IUID Initial Opportunity



2008

Tasking: CG 52 USS BUNKER HILL

Implement Item Unique Identification (IUID) requirements for Material furnished by NGSB Gulf Coast to support the CG52 Cruiser Modernization (DMP08) in San Diego, CA

On NGSB-GC Kitted Material Only

Identify items meeting DOD IUID requirements
Develop IUID Bar Code (CAGE, Part Number, Serial Number)

Tag IUID on Material Update IUID Registry Update CDMD-OA



Cruiser Modernization

Life Cycle IUID Process Execution



Mar-Nov 2008

s | m | t | w | t | f | s

Use eValaid technology to track Item Unique Identification (IUID)

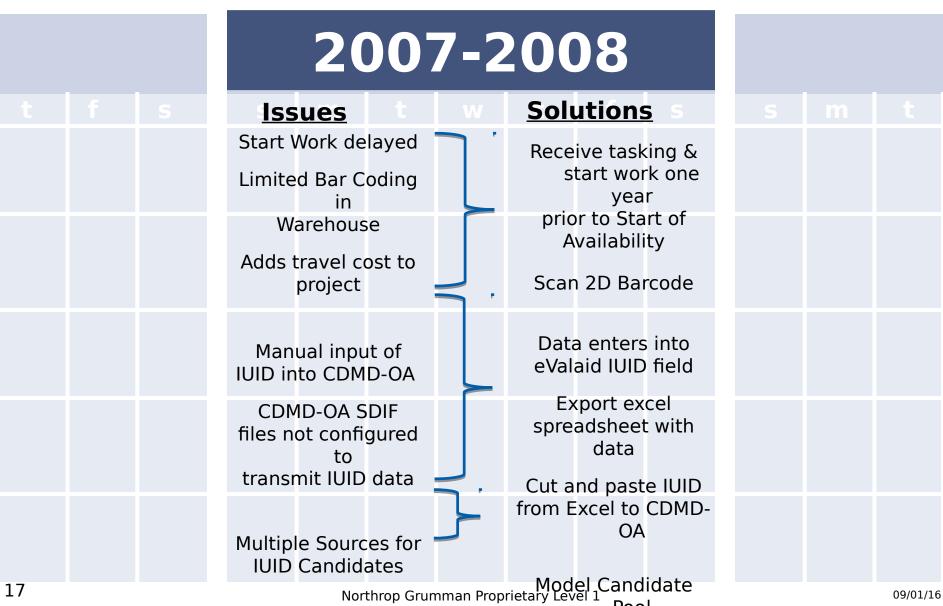
Identify Candidate Equipment
Material Received
Print Bar Codes and Install
OSLR validate onboard
Upload to CDM





Life Cycle IUID Lessons Learned





Life Cycle IUID Lessons Learned



Label Making

Issues

RMI Laser Printer 8 labels/20 minutes

Solutions

PX4i
Desktop Thermal
Transfer Printer
30 labels/Second





Zebra P4T Mobile
Thermal Transfer
Printer

12 labels/Second



Time Factor

Life Cycle IUID Continuous Improvement



2008-2010



CG 59 USS PRINCETON

Bar coded kitted material Captured OEM IUIDs Labeled some legacy equipment

CG 53 USS MOBILE BAY

Currently in progress

2010 Planned Enhancement



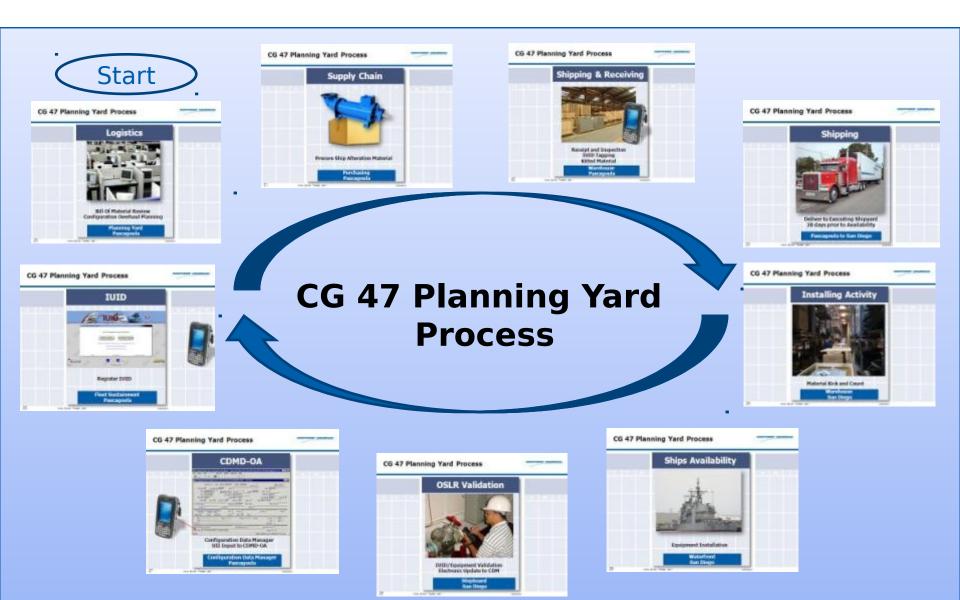
Seamless CDMD-OA Update Real Time Portable Label Making

Pre-Printed Construct 1 Labels For On-Site Validation



Life Cycle IUID Process





















Receipt and Inspection IUID Tagging Kitted Material

> Warehouse Pascagoula







Installing Activity



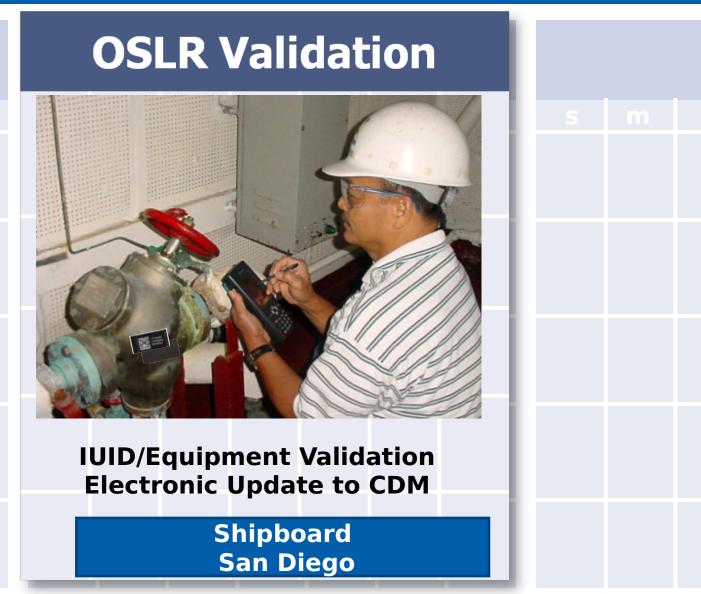
Material Kick and Count

Warehouse San Diego

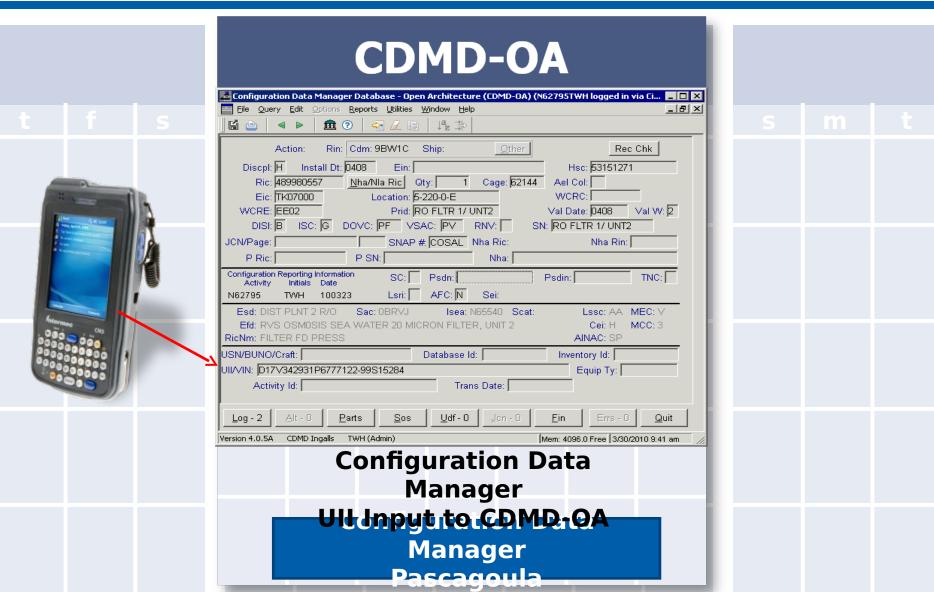
















Sample ROI







San Diego Warehouse



CG52 has a
Lube Oil Heater Failure
(Long-Lead Material)

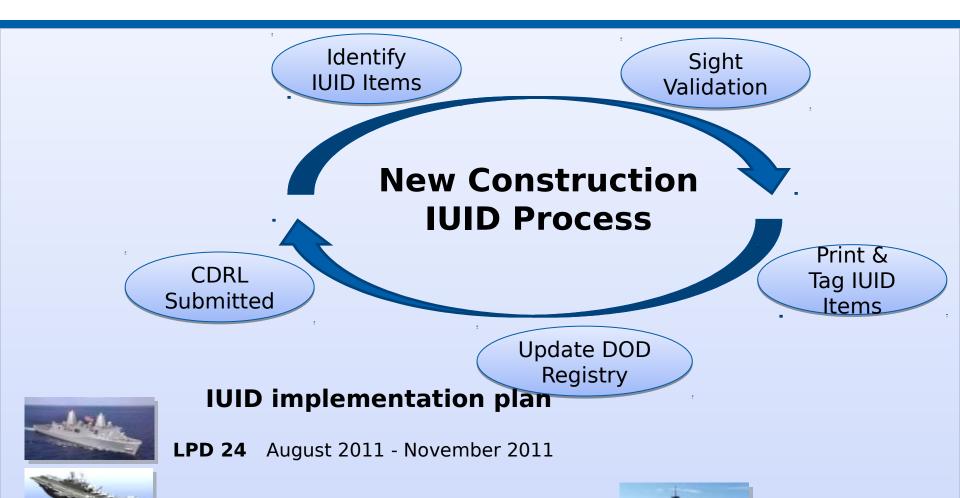




New Construction

LHA 6





DDG 113 March 2015 - April 2015

October 2012 - December 2012

NSC 750

Fleet Sustainment - Enabling Technologies





Material Inventory Management









RECEIPT/INSPECTION AND TAGGING





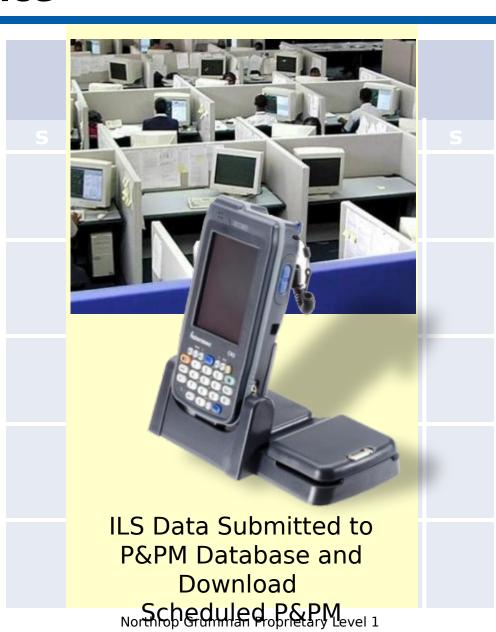
WAREHOUSE



33

Preservation & Preventative Maintenance





Scan Equipmer Data And Perforn

Cable Plant Management System



